

7/2/19

NCR-19-7424

[Dart Hawkesbury] Job Sheet - Renwick, Jennifer

010976



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1270 Aberdeen St
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Canada

Tel (613) 632-5200
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Derivation

C60
Job Sheet 197203

Part No: C60

Job Qty: 1 pcs

Part Name: C-Series Remote Hook 6,000 lbs Lift Capacity



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/2/19

Job Tracking No:

Created By: Jennifer Renwick

Due Date: 8/23/19

Description: Order 17653

Type: SOLD

Note: C60 REV.C IPP REV:A 18.02.06 NEW ISSUE DD VERF:DP/IPP Rev. B 19.05.13 drawing revision DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
100	External Load - 1	1 pcs	8/23/19	8/23/19	0.30	0.25	External Load - 1	AP
							External Load - 2	
							External Load - 3	
110	External Load - 2 - B4B	1 pcs	8/23/19	8/23/19	0.30	4.00	External Load - 1 - B4B	AP 2019/10/20
							External Load - 2 - B4B	Metal
							External Load - 3 - B4B	
120	QC 5	1 pcs	8/23/19	8/23/19	0.00	0.00	QC 5 - 10	
							QC 5 - 12	
							QC 5 - 17	
							QC 5 - 18	
							QC 5 - 19	
							QC 5 - 22	
							QC 5 - 24	
							QC 5 - 3	
							QC 5 - 43	
							QC 5 - 49	
							QC 5 - 51	
							QC 5 - 58	SMB
							QC 5 - 68	19/8/20
							QC 5 - 9	
							QC 5 - 50	
							QC 5 - 30	
							QC 5 - 40	
130	Packaging 3-2 - Stock - B4B	1 pcs	8/23/19	8/23/19	0.00	0.00	Packaging 3 - 1 - B4B	
							Packaging 3 - 2 - B4B	
							Packaging 3 - 3 - B4B	
							Packaging 3 - 4 - B4B	
							Packaging 3 - 5 - B4B	
							Packaging 3 - 6 - B4B	
							Packaging 3 - 7 - B4B	
							Packaging 3 - 8 - B4B	SMB
							Packaging 3 - 9 - B4B	19/8/20
							Packaging 3 - 10 - B4B	
							Packaging 3 - 11 - B4B	
							Packaging 3 - 12 - B4B	
							Packaging 3 - 13 - B4B	
							Packaging 3 - 14 - B4B	
							Packaging 3 - 15 - B4B	
							Packaging 3 - 16 - B4B	
							Packaging 3 - 17 - B4B	
							Packaging 3 - 18 - B4B	



Container No: S198819



Part: C60

Job No: 197203

Serial No/Batch: S198819

Revision: C

Inspector:

Exp Date:

Instructions:

Date: 07/18/19

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P.T.O.

				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
140 QC 21 - SA	1 pcs	8/23/19	0.00 0.00	QC 21 - SA - 21	
				QC 21 - SA - 70	
				QC 21 - SA - 53	AUG 20 2019

Part Op 100 - Issue S/N.

Descriptions: 110 - (Small Fab) 1- PICK C60-2-1 AND LASER ENGRAVE AS PER DWG . SEE NOTE 3 AND 4 ON SHEET 3. 2- ASSEMBLE AS PER DWG 3- PERFORM ALL NECESSARY TEST USING FAI TEST SHEET.

120 - QC5- Inspect part completeness to step on W/O)

130 - (Identify as per dwg & Stock Location: _____)

140 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
188-FPSS-1/4-20-3/8	Set Screw	2 Ea (2 ea)	110-External Load - 1	S048557
188-FSCS-1032-5/8	Flat socket cap Screw	4 Ea (4 ea)	110-External Load - 2 - B4B	S196435-1
32448	16-14 AWG Knife Connector	2 Ea (2 ea)	110-External Load - 2 - B4B	S041618
600.1309	Label	1 pcs (1 ea)	110-External Load - 2 - B4B	
600.1309-A	Label	1 pcs (1 ea)	110-External Load - 2 - B4B	
7856K75	Heat Shrink Tubing Color Black	.5000 ft (.5 ea)	110-External Load - 2 - B4B	S190246
AN4-24A	Bolt	2 Ea (2 ea)	110-External Load - 2 - B4B	S183233
AN5-21A	Bolt	4 Ea (4 ea)	110-External Load - 2 - B4B	S097081-1
C10-41	Strain Relief Connector	1 Ea (1 ea)	110-External Load - 2 - B4B	S083917
C45-1-1	Manual Knob Release	1 pcs (1 ea)	110-External Load - 2 - B4B	S165654
C45-10-1 P	Lock Spring Pin	1 Ea (1 ea)	110-External Load - 2 - B4B	S040658 S029293
C45-11-2	Locating Pin	2 Ea (2 ea)	110-External Load - 2 - B4B	S089115
C45-12-1	Lock Bushing	2 pcs (2 ea)	110-External Load - 2 - B4B	S179711
C45-12-2	Lock Shaft	1 pcs (1 ea)	110-External Load - 2 - B4B	S163665
C45-12-4	Lock Roller	1 pcs (1 ea)	110-External Load - 2 - B4B	S108073
C45-12-5	Lock Roller Pin	1 pcs (1 ea)	110-External Load - 2 - B4B	S093171
C45-12-6P	Retaining Ring	2 pcs (2 ea)	110-External Load - 2 - B4B	S029303
C45-13-1 P	Keeper Bushing	2 pcs (2 ea)	110-External Load - 2 - B4B	S125630
C45-13-2	Teflon Keeper, Spacer	2 Ea (2 ea)	110-External Load - 2 - B4B	S027246
C45-13-3	Keeper Shaft	1 pcs (1 ea)	110-External Load - 2 - B4B	S157825
C45-13-4	Keeper	1 pcs (1 ea)	110-External Load - 2 - B4B	S170614
C45-13-5	Keeper Spring	1 pcs (1 ea)	110-External Load - 2 - B4B	S172439
C45-3-11	Actuator	1 pcs (1 ea)	110-External Load - 2 - B4B	S165452
C45-3-12	Latch Roller Bearing	1 Ea (1 ea)	110-External Load - 2 - B4B	S097903

C45-3-2	Latch Roller Pin	1 pcs (1 ea)	110-External Load - 2 - B4B	5029316	
C45-3-2-1	Snap Ring	2 Ea (2 ea)	110-External Load - 2 - B4B	5066606	
C45-3-3	Latch Roller	1 pcs (1 ea)	110-External Load - 2 - B4B	5127763	
C45-3-4	Pin	2 pcs (2 ea)	110-External Load - 2 - B4B	5133668	
C45-3-4-1	Retaining Ring	4 Ea (4 ea)	110-External Load - 2 - B4B	③5035997	①5068056
C45-3-5	Teflon Spacer	2 Ea (2 ea)	110-External Load - 2 - B4B	5029325	5097745
C45-3-6	Latch	1 pcs (1 ea)	110-External Load - 2 - B4B	5165726	
C45-3-7	Link	1 pcs (1 ea)	110-External Load - 2 - B4B	5029322	
C45-3-8A	Actuator Shaft Bushing	1 pcs (1 ea)	110-External Load - 2 - B4B	5078570	
C45-3-8B	Actuator Shaft Bushing	1 pcs (1 ea)	110-External Load - 2 - B4B	5182358	
C45-3-9	Lever Spring	1 pcs (1 ea)	110-External Load - 2 - B4B	5089520	
C45-4-1	Trunnion Bushing	2 pcs (2 ea)	110-External Load - 2 - B4B	5122724	
C45-4-4A	C45 Load Beam Assembly	1 pcs (1 ea)	110-External Load - 2 - B4B	5195984	
C45-4-5	Loadbeam Spacer	1 pcs (1 ea)	110-External Load - 2 - B4B	5163562	
C45-5-1	Lever Stop Pin	1 Ea (1 ea)	110-External Load - 2 - B4B	5029329	5089113
C45-5-2	Lever Stop	1 pcs (1 ea)	110-External Load - 2 - B4B	5029330	5175808
C45-7-1	LOADBEAM BUMPER	1 pcs (1 ea)	110-External Load - 2 - B4B	5177835	
C45-7-2	Lock Bumper	2 pcs (2 ea)	110-External Load - 2 - B4B	5179118	
C45-8-1-2	Solenoid Nut	2 pcs (2 ea)	110-External Load - 2 - B4B	5163995	
C45-8-2	Solenoid	1 pcs (1 ea)	110-External Load - 2 - B4B	5201006	
C45-8-4	Solenoid Cover Gasket	1 pcs (1 ea)	110-External Load - 2 - B4B	5199513	
C45-8-5	Solenoid Cover	1 pcs (1 ea)	110-External Load - 2 - B4B	5175959	
C45-9-1	Clock Spring Cover	1 pcs (1 ea)	110-External Load - 2 - B4B	5167968	
C45-9-2	Clock Spring	1 pcs (1 ea)	110-External Load - 2 - B4B	5107946	
C60-10-2	Lock Spring	1 pcs (1 ea)	110-External Load - 2 - B4B	5076648	
C60-11-1	Side Plate Solenoid	1 pcs (1 ea)	110-External Load - 2 - B4B	5062199	
C60-12-3	Lock	1 pcs (1 ea)	110-External Load - 2 - B4B	5029342	
C60-2-1	Side Plate	1 pcs (1 ea)	110-External Load - 2 - B4B	5029450	
C60-3-1	Radial Bearing	2 Ea (2 ea)	110-External Load - 2 - B4B	5100180	
C60-3-10	Latch Shaft	1 pcs (1 ea)	110-External Load - 2 - B4B	5029345	
EL-PLUG-M	3-Prong Male Spade Plug	1 Ea (1 ea)	110-External Load - 2 - B4B	5097886	
EL314-SJTOW	Long Line Electrical Wire, 14/3 Gauge replace w/t 01004-08-047	1 ft (1 ea)	110-External Load - 2 - B4B	5179682	
MS21044N5	Nut	4 Ea (4 ea)	110-External Load - 2 - B4B	5192486	
MS27039-4-08	Screw	1 Ea (1 ea)	110-External Load - 2 - B4B	5039330	
NAS1149F0463P	Washer (AN960-416)	3 Ea (3 ea)	110-External Load - 2 - B4B	50970884	
NAS1149F0563P	Washer (AN960-516)	8 Ea (8 ea)	110-External Load - 2 - B4B	5184942	

Lactite 242 (\$186572)

Lactite 620 (\$194792)

Sof-T-ye (\$1128063)

deroshell grease NO.7 (\$138964)

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
100-External Load - 1	188-FPSS-1/4-20-3/8	2	52	0
	188-FSCS-1032-5/8	4	59	0
110-External Load - 2 - B4B	32448	2	53	0
	600.1309	1	100	0
	600.1309-A	1	73	0
	7856K75	1	50	0
	AN4-24A	2	33	0
	AN5-21A	4	290	0
	C10-41	1	8	0
	C45-1-1	1	7	0
	C45-10-1	1	155	0
	C45-11-2	2	27	0
	C45-12-1	2	44	0
	C45-12-2	1	11	0
	C45-12-4	1	57	0
	C45-12-5	1	34	0
	C45-12-6P	2	341	0
	C45-13-1	2	46	0
	C45-13-2	2	42	0
	C45-13-3	1	21	0
	C45-13-4	1	9	0
	C45-13-5	1	94	0
	C45-3-11	1	21	0
	C45-3-12	1	68	0
	C45-3-2	1	40	0
	C45-3-2-1	2	73	0
	C45-3-3	1	13	0
	C45-3-4	2	32	0
	C45-3-4-1	4	87	0
	C45-3-5	2	85	0
	C45-3-6	1	12	0
	C45-3-7	1	0	0
	C45-3-8A	1	12	0
	C45-3-8B	1	29	0
	C45-3-9	1	116	0
	C45-4-1	2	31	0
	C45-4-4A	1	0	0
	C45-4-5	1	7	0
	C45-5-1	1	31	0
	C45-5-2	1	29	0
	C45-7-1	1	20	0
	C45-7-2	2	22	0
	C45-8-1-2	2	57	0
	C45-8-2	1	5	0
	C45-8-4	1	6	0
	C45-8-5	1	33	0
	C45-9-1	1	12	0
	C45-9-2	1	33	0
	C60-10-2	1	32	0
	C60-11-1	1	0	0
	C60-12-3	1	0	0
	C60-2-1	1	0	0
	C60-3-1	2	44	0
	C60-3-10	1	0	0
	EL-PLUG-M	1	46	0
	EL314-SJTOW	1	0	0
	MS21044N5	4	213	0
	MS27039-4-08	1	206	0
	NAS1149F0463P	3	213	0
	NAS1149F0563P	8	215	0
Part Specifications				
Specifications could not be found.				

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Remote Cargo Hook Test Form

C60

Work Order 197203

Customer Order 17653

Serial Number 5198819

Date 2019-8-20

# of Releases	Load (Lbs.)	Release Method	Remarks	Result	Pass/fail
1	15,000	Static Hold	Hold for two Minutes and reduce load to zero	N/A	Pass
10	3,000	Electircal, 25 volts	No "hang ups" permitted	N/A	Pass
2	6,000	Electircal, 22 volts	Current shall not exceed 12.4A	9.0 Amp.	Pass
2	4,500	Electircal, 22 volts	Current shall not exceed 12.4A	8.9 Amp.	Pass
2	3,000	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
2	1,500	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
2	500	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
1	6,000	Electircal, 20 volts	Current shall not exceed 11.3A	8.4 Amp.	Pass
1	6,000	Electircal, 28 volts	Current shall not exceed 15.8A	11.4 Amp.	Pass
1	6,000	Manual		N/A	Pass
1	6,000	Impact Test	Impact shackle 10 times, shall not release	N/A	Pass
1	N/A	Solenoid Ohms	Shall not exceed 1.7-2.0 Ohms	1.4 Ohms	Pass
1	N/A	Electircal Continuity	Across both wires	N/A	Pass

Test Conducted By Michel Lalonde

Signature: Sylvan Boyer

QC 5 Small FAB / QA

Submit



Remote Cargo Hook Test Form

C60

Work Order 197 203

Customer Order 17653

Serial Number 5198819

Date 2019-8-20

# of Releases	Load (Lbs.)	Release Method	Remarks	Result	Pass/fail
1	15,000	Static Hold	Hold for two Minutes and reduce load to zero	N/A	Pass
10	3,000	Electircal, 25 volts	No "hang ups" permitted	N/A	Pass
2	6,000	Electircal, 22 volts	Current shall not exceed 12.4A	9.0 Amp.	Pass
2	4,500	Electircal, 22 volts	Current shall not exceed 12.4A	8.9 Amp.	Pass
2	3,000	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
2	1,500	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
2	500	Electircal, 22 volts	Current shall not exceed 12.4A	8.8 Amp.	Pass
1	6,000	Electircal, 20 volts	Current shall not exceed 11.3A	8.4 Amp.	Pass
1	6,000	Electircal, 28 volts	Current shall not exceed 15.8A	11.4 Amp.	Pass
1	6,000	Manual		N/A	Pass
1	6,000	Impact Test	Impact shackle 10 times, shall not release	N/A	Pass
1	N/A	Solenoid Ohms	Shall not exceed 1.7-2.0 Ohms	1.4 Ohms	Pass
1	N/A	Electircal Continuity	Across both wires	N/A	Pass

Test Conducted By

Michel Lelonde

Signature: _____

QC 5 Small FAB / QA

Submit

Oct 18/19



19-7424

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only

Job: <u>197203</u>		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐		DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Eng. (Non-AW) ☒ Engineering ☐ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Water Jet ☐ Large Fab ☐ Finishing ☐ Rec/Store/Packaging ☐ Supplier ☐ Quality ☐					
Part No. <u>C series hooks and SWA Swivels</u> <u>C60</u>									
Date : <u>2019-08-20</u>	Sequence #:		QTY Affected : <u>1</u>				MRB (QS1042) May, 9 2019 <i>Mike</i>		
Description Work Order Deviation			Disposition						
The electrical wires listed under "Acceptable Alternate Wire" on the attached sheet are acceptable to use in place of the "Drawing Specified Wire"			This deviation is acceptable.						
			No change to fit form or function.						
			The job route must specify the wire that is called out on the drawing						
			The inventory P/N must reflect the same P/N that was received from a vendor						
			Completed By <u>A-PATRY</u> Lead hand / Supervisor DAS 30 OCT 11 2019 9-89						
			QC / QA Coordinator DAS 68 OCT 11 2019 9-89						
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☒ Process Improvement ☐ Human Factors ☐			FAULT CATEGORY Pressure/Forced ☐ Contamination ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Misaligned/off center ☐ Folio/Program ☐ Outside Tolerance ☐ Crushing ☐ BOM/Route ☐ Grain Direction ☒ Drawing ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Finish ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Incomplete/Unclear Instructions ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Marks/Chatter ☐ Drill Holes ☐ Out of Sequence ☐ Misread ☐ Mislabeled ☐ Fit/Function ☐ Off-set/Set-up ☐						
			Other/Details:						